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Project | Date 1922 | Author James C. Evenden, Entomologist

SUBJECT—

TITLE

PINE WHITE BUTTERFLY EPIDEMIC IN IDAHO

(Neophasia menapia)

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PINE WHITE BUTTERFLY EPIDEMIC IN IDAHO.

(Neophasia menapia)

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During July 1922, the writer was advised by Mr. H. C. Shellworth, Boise Payette Lumber Company, and by Forest Officers of the Payette and Idaho National Forests, of a severe defoliation of the yellow pine on the Payette and Little Salmon River watersheds. Caterpillars were submitted to this station which were identifed as the pine white butterfly (Neophasia menapia Felder)

The writer visited this region in September 1922, where considerable time was spent in an examination of this epidemic. The defoliation covered an area of approximately 30,000 acres This area was not in one block but was distributed in five centers of infestation located at New Meadows, McCall, Sphinx, Arling, and Clear Creek. The work of this insect was recorded in other regions but not with the same severity as in these five centers.

In these five areas the defoliation had been very severe, all of the old needles, prior to the 1922 growth, had been eaten off to within 1/2 inch or more of the limbs and in many instances the new

needles had been injured. Where the needles are eaten close to the limbs the fascicles soon dies and falls. This damage was not confined to the mature trees as a large percent of the reproduction was severely defoliated.

It is reported that during August immense clouds of these butterflies were to be seen in this region. This fact is readily believable as millions of their dead bodies were to be seen upon the forest floor. Apparently the main flight of these insects occured at that time. At the time of the examination this insect was in the eggs stage, large numbers of which could be found upon the remaining green needles of both large and small trees. It does not seem that there can be any doubt but that the winter is passed by this insect in the egg stage. Though this insect has been known for many years its seasonal history has never been determined.

Records are known of other epidemics of this insects occuring in the northwest on the following dates; 1882, 1883, 1890, 1894, 1895, 1896, 1903, and 1917. With the knowledge that it is almost impossible to foresee the acts of nature, yet based upon the history of other epidemics it is believed that this imfestation will be controlled by natural agencies before the insect itself becomes independently destructive to the timber. In this connection a fairly large percent (15 to 20 percent) of the caterpillars which

were present during June and July failed to reach the butterfly stage due to predacious and parasitic insects.

Though it is believed that the pine butterfly will not be directly responsible for the death of any great amount of timber, the defoliated trees must be severely weakened and their resistance to insect anf fungi attack greatly reduced. Just what effect this condition will have upon the normal Dendroctonus brevicomis infestation which is present throughout this region is unknown.

Respectfully submitted,

James C. Evenden

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Entomologist.